BROAD OVAL AUSTRALITE CORE FROM MUNTADGIN, WESTERN AUSTRALIA

W.H. CLEVERLY*

[Received 6 December 1977. Accepted 30 March 1978. Published 5 June 1979.]

ABSTRACT

The combination of unusually large size and relatively unweathered condition of an australite from Muntadgin, Western Australia has made possible an assessment of the form, dimensions and mass of the primary body from which it was developed. The primary body approximated to a triaxial ellipsoid of dimensions c. 77 x $62\frac{1}{2}$ x 40 mm and mass c. 245 grams. The retention of a small part of the aerothermal stress shell on the anterior surface of flight of the australite is suspected.

INTRODUCTION

An unusually large australite (Australian tektite), registered no. 13 396 in the Western Australian Museum collection, was presented by Mr W.J. Hooper, who found it in early January 1977, at the northern roadside adjoining Avon Loc. 19 196, 6 km east of the railway line at Muntadgin. A nearby borrow pit may have been the source of gravel used on the road and containing the specimen. The site of find has co-ordinates $118^{\circ}37'E$, $31^{\circ}46'S$.

Muntadgin is approximately 260 km north of east from Perth and is within the western of two recognised belts of occurrence of unusually large australites (Cleverly & Scrymgour, 1978); the largest and heaviest of all known australites was recovered near Notting, only 85 km distant (Cleverly, 1974).

DESCRIPTION OF AUSTRALITE

The specimen is a core, the remnant shape after loss of frontal glass by ablation stripping during oriented, hypersonic velocity encounter with the

^{*} W.A. School of Mines, Kalgoorlie, Western Australia 6430.